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Edited by WILLIAM HUNTING, F.R.C.V.S.

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AN INAUGURAL ADDRESS.

Professor Brodie, who has the misfortune of teaching Physiology at the Royal Veterinary College, gave the inaugural address at that institution on Monday last. On page 216 we give a short but fair abstract of his remarks. To many of those present the views he expressed demonstrated his absolute innocence of any knowledge of veterinary science, or even of the work done at the institution where he is one of the teaching staff. Had he possessed even an elementary knowledge of the veterinary profession or of the College at which he is employed he could not possibly have voiced the remarkable ideas which some one more artful than himself must have suggested.

There seems to be an ineradicable idea among medical men that the veterinary profession is shockingly behind their own standard of professional attainments. Twenty years ago there would have been truth in such an assumption, but now it is only a gratuitous impertinence due to profound ignorance. The average veterinary surgeon who has graduated during the last two decades is exactly on the same scientific level as the average medical man. The difference between the two professions is in the upper and the lower strata. A small percentage of the 30,000 medical men, by dint of money, post-graduate studies and opportunities for research, have reached a much higher standard of proficiency than their fellow graduates, and than all but a handful of the 3,000 veterinary graduates. At the lower end of the scale we have a proportion of men who obtained diplomas when no matriculation existed, and when a two-years course of study was deemed sufficient. A very different state of things now obtains, and veterinary graduates are submitted to a set of examinations quite equal to the tests which qualify for medical registration.

After all the efforts we have made, unaided by Government grants, rich ship-owners and munificent brewers, we deserve something more than the contemptuous patronage and ignorant pity of a few medical men and scientists who have not taken the trouble to investigate facts or recognise achievements. We should be grateful for a simple acknowledgement of what we have done and a little encouragement to continue the hard but successful struggle we have made and are making. We strongly resent the belittling indulged in by some of our critics, especially when it is made a starting point for offers of assistance—"Yes, such assistance as vultures give to lambs, covering and devouring them."

Professor Brodie's address was no doubt well meant. Good intentions have often done harm before, and it is a poor excuse to say "I am very sorry but I did not know." When a man is ignorant he should not attempt work which requires knowledge. Still worse is it when he goes to the camp of the enemy for information. To those who do not know the disengenuous nature of the Professor it would never occur that he should go to Liverpool a few days before the opening of the Royal Veterinary College and obtain information concerning the defects of the veterinary profession and the superiority of the untried scheme elaborated by Professor Boyce. Yet so it was. Professor Brodie went to Liverpool and was shown round by his friends. He returned to London implicitly believing all he was told and, like another Balaam, when entrusted with a confidential mission, proceeded to curse the things he was expected to bless.

Professor Brodie referred to the new school of veterinary medicine in Liverpool as "an undertaking which he thought furnished a lesson which it would be disastrous not to take to heart." In a quite different sense to his we agree. We have taken it to heart, and we look upon it as an awful warning which it is the duty of all veterinarians to avoid. All who read the remarks of Prof. Boyce on the supposed advantages of the Liverpool scheme will be struck with the similarity of Prof. Brodie's statements. They are simply an echo of what we heard before, but which apparently are quite novel to Professor Brodie, who only heard and accepted them a few days before his good taste and discretion permitted him to repeat them at Camden Town.

Perhaps the funniest remark in this curious inaugural address was—"That position was now seriously menaced, and it behoved all connected with the College to see that it was not outstripped in the race by a younger institution which might have learnt and profited by the lessons of the past." This is the warning a professor of the Royal Veterinary College utters after a conversation with Prof. Boyce and with full knowledge that the institution in which he was speaking held "the premier position" as a veterinary school.

We strongly advise the authorities at Camden Town to carefully edit in future the inaugural addresses given at their school—at any rate when they are entrusted to a person ignorant of the veterinary profession.

"Careful observation makes a skilful practitioner but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of Pathological Science."

THE CASTRATION OF CRYPTORCHIDS.

By J. R. U. Dewar,

Principal Royal (Dick) Vet. Coll., Edinburgh.

Extract from an address delivered before the Edinburgh Veterinary Medical Association, on Friday, March 25th, 1904.

Now, gentlemen, to emphasise these remarks, to add interest to the subject, and assist your memories I have here, amongst others, the testicles, or what we must accept as testicles, obtained from three consecutive operations during the past season.

The first two, which I will call No. 1*a* and No. 1*b*, were removed from a three-year-old Clydesdale colt. The next two, No. 2*a* and No. 2*b*, were from a two-year-old half bred colt, and the third No. 3 was also from a half-bred colt.

The first two, as you can see, are both cystic, but while No. 1*a* was only removed with difficulty after being tapped, No. 1*b*, although cystic, was removed whole and entire. I need hardly say, gentlemen, that all these testicles were intra-abdominal. No. 1*a* is of the nature of a dermoid cyst. It consists partly of cartilage, some of it partially ossified, and contained in the fluid epithelial débris, hair, etc. But the fluid flowed practically clear from it until it was, at least, one half empty. After it had been lying in a preservative fluid for some weeks, Mr. Sarjeant found that it had a capacity of 3¼ pints, and weighed when empty 21 ozs. No. 1*b* on the other hand, only weighed empty 7 oz.

The veterinary surgeon who called me in to assist him, wrote soon after saying that he met the owner away from the farm a few days after the operation who told him the horse was doing so well that there was no need for him to call.

No. 2*a* was removed with greater difficulty than No. 1*a*. The colt was more restless and the cyst bigger. After convincing myself that I had a cystc testicle to deal with, I inserted the trocar, as I thought, into the cyst, but found that no fluid followed its withdrawal. However, I reinserted it more deeply towards the centre of the mass and then the fluid came quite satisfactorily. The first time the trocar had only passed down between the walls of the cyst without penetrating the inner coat. This canula, as you see, is only 5½ inches long and had to be pushed well down until the shield of it was well into the canal. While the fluid flowed I kept the cyst in position by a steady pull on the cord. But when about two-thirds empty an unlooked for accident occurred. The colt gave a struggle and the canula disappeared inside the peritoneal cavity. However, I still had a hold of the cord, and after some time managed to get hold of the distal end of the canula between two fingers. The distal end had never left the wound in the cyst wall, so that by pulling on the cord I brought it nearer my hand and was able to get it out. The now nearly empty cyst followed quite easily. But during this time a large quantity of the straw-coloured fluid contents had escaped into the peritoneal cavity. This cyst, measured by Mr. Sarjeant, under similar conditions to the last one, had a capacity of over 4 pints, and its weight empty was 22¾ ozs. But its capacity was really greater than this indicates, as owing to the injuries to its walls it could not be properly distended.

No. 2*b*, the other testicle from the same colt is, as you can see, of quite a different character. It is also abnormal, but instead of being cystic is very solid—a sarcocele. In order to effect its removal the wound had to be enlarged more than was desirable.

Now this case shows that the peritoneum is not nearly so sensitive as it generally gets credit for. The colt was probably nearly an hour on his back. He had two abnormal testicles, one cystic the other solid, removed from the peritoneal cavity; the canula was for a time lost in his abdomen, and although there was not much blood there was certainly a large quantity of this cystic fluid escaped into the peritoneum, and was necessarily left there, yet everything being aseptic he made a good recovery. He manifested some symptoms of pain two or three hours after the operation, but an anodyne draught settled that, and his owner wrote to the veterinary surgeon some ten days later—"That colt is not any better. Tell Dewar from me that if he cannot make a better job than this he should not attempt it. He would serve yet." Needless to say, in another week or two the colt became a sedate gelding.

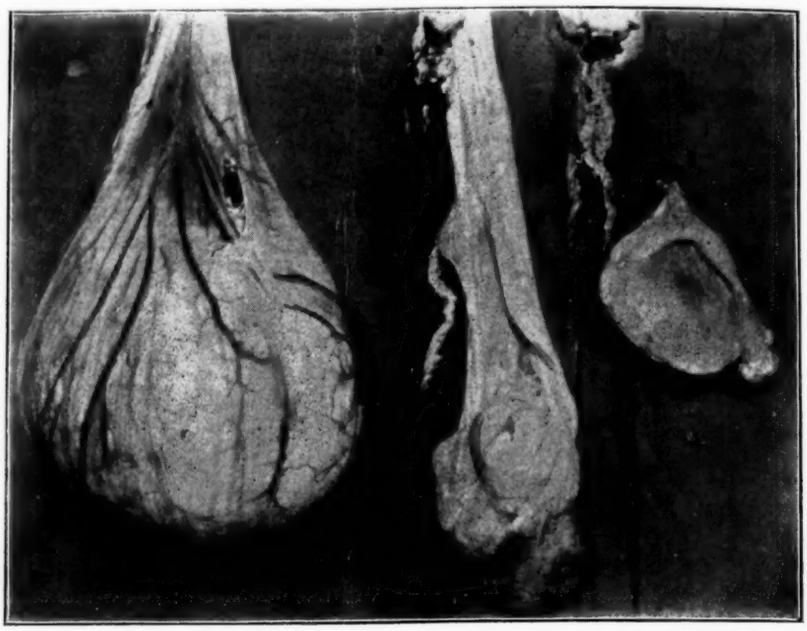
Testicle No. 3, also cystic, is not nearly so large. Its capacity is 1½ pints, and its weight empty 9¼ oz. Its removal caused very little disturbance. The opposite testicle had been removed the previous season. There are some photographs here, for which I am indebted to my colleague, Prof. Dunstan, which will give you some idea of the relative appearance of these testicles when distended. The small testicle on the right in each photograph is a normal testicle shown merely by way of contrast.

PECULIAR ACCIDENT.

An Airedale terrier out for a walk in the afternoon with his mistress. In running to and fro he tried to get through a hedge in which was some barbed wire. He got stuck fast in the hedge, gave some sharp cries and got free. Severe hæmorrhage occurred from the preputial opening. The hæmorrhage was arterial and the dog intermittently lost about half a pint of blood.

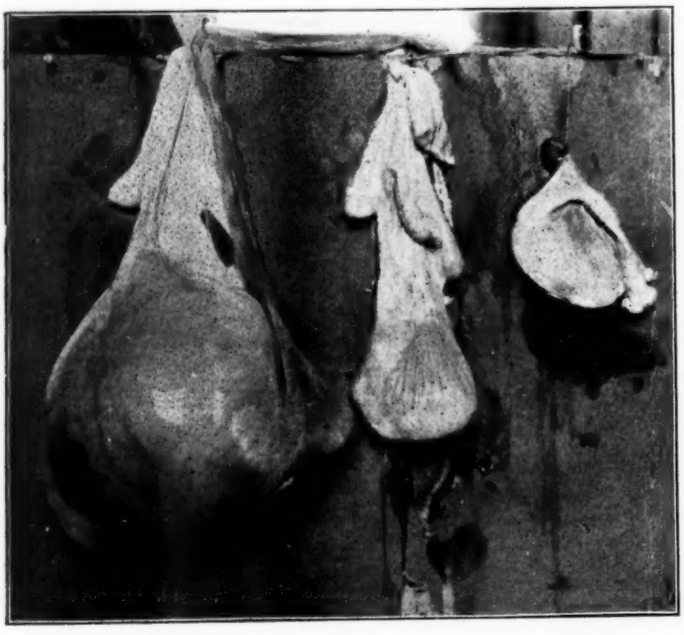
On exposing the penis found a deep triangular incised wound about two inches from the end of the penis, and evidently severing the artery of the penis. The bleeding was stopped by applying lunar caustic to the cut.

The accident seems worth recording because there was not the slightest injury to the prepuce,



Normal.

2*a*. 2*b*.



Normal.

1*a*. 1*b*.

Normal.

3.

Illustrating Prof. Dewar's note on Cryptorchids, page 204.

showing that the penis must have been protruded at the time of the accident. The injury would not have been suspected except for the profuse hæmorrhage. The difficulty of permanently controlling hæmorrhage in this situation is evident. I opine that the dog stood on his hind legs, and while pressing and straining to get through the hedge his penis became protruded and caught in the barbed wire. There was no trace of stricture when he left, though the catheter had to be passed twice, as owing to the soreness of the penis the dog seemed afraid to try to pass his water. I might live to be a hundred and never see a like accident again.

G. M.

CURIOUS LOSS OF HAIR.

A black American gelding mule, aged about nine years, was admitted into the Veterinary Hospital on the 5th May, 1904, suffering from a punctured wound in the outside of the near hock joint, there was very little swelling and a slight amount of lameness; under ordinary treatment he recovered and was discharged to duty on the 4th June. He was put into work and seemed to do alright until the morning of the 9th June when he was again sent into the Veterinary Hospital having received what appeared to be a kick in the seat of the old injury, there was a small wound with a slight amount of swelling but very little lameness, ordinary antiseptic treatment was adopted and it appeared to be improving. On the morning of the 1st July a bald spot about the size of a shilling was noticed on the near side of the neck, and on examination the surrounding hair came out, and the hair on the other parts of the body could be plucked out.

Next day when he was being groomed the whole of the hair on the body, except below the knees and hocks and the mane and tail, came away leaving him quite bald. He was warmly clothed, but never a hair grew, and he developed a depraved appetite and ate some sand from the floor and part of his rugs, with a result that colic occurred, but under treatment this disappeared, although the appetite remained depraved, and he was kept muzzled when not feeding. A purgative was given followed by ant-acids; and crushed oats, bran, good hay, extract of malt, and molassine meal formed his diet, but he didn't seem to improve and as soon as he had finished his feed, unless muzzled, attacked his rugs and anything within reach.

He commenced to fall off in condition and had a very anæmic appearance, the wound remaining in the same condition, in fact making no progress from the time that the hair fell off; he became thinner and thinner, and had slight colicy pains which passed away in a few minutes, and eventually died on the 29th Aug. Unfortunately I was away at the time of his death and could not make a post-mortem, but the Staff Sargeant Farrier opened him and reported to me on my return that the body was generally anæmic, all the organs healthy, except a few bots in the stomach, the hock generally inflamed, the bones eroded and soft, so much so that they could be picked to pieces with the finger nail. Notwithstanding the hock lesion there was never any amount of lameness, and no pain in the hock.

I forward photographs if you can make any use of them.

Ben. Runciman, M.R.C.V.S.

South African Constabulary,
Heidelberg, Transvaal.

ABSTRACTS FROM FOREIGN JOURNALS.

Experiments with Adrenalin.

Lesage shows that adrenalin is the most powerful vaso-constrictor agent known, and after many experiments as to its toxic properties comes to these conclusions:

1. That in rabbits, guinea-pigs, and dogs a dose of 1-2 tenths of a milligram per kilo. of weight is fatal. But a dose of one-twentieth of a milligram is quite harmless and may be taken as the therapeutic limit.

2. In the cat the toxic dose is higher and ranges from 50-81 hundredths of a milligram per kilo A dose of 25 hundredths of a milligram not having in any case induced death may be taken as the therapeutic limit.

3. In dogs, whether under an anæsthetic or not poisoning is rapid and occurs in 4-6 minutes. In the cat it is slower.

4. In dogs the only noticeable symptom, and that not invariable, is an increase in number and violence of the heart beats. A bigger dose O. milligr. 20—O. milligr. 35 per kilo sets up a quickened respiration, panting and painful, then nausea,

vomiting, alvine evacuations, rectal and vesical tenesmus, not in all cases fatal.

5. In cats the non-toxic dose of 0·25 milligr. per kilo. produces weakness, frequent and noisy respiration, ptyalism, dilatation of the pupils, sometimes nausea vomiting, and defæcation, which symptoms disappear in half an hour however.

With the toxic dose 1·2 milligr. these symptoms occur with greater rapidity, and after a variable interval of calm, respiratory and cardiac paralysis supervenes.—*Rec. de Méd. Vét.*

Dermoid Cyst in an Ox.

A three year old ox had been noticed for six weeks to have a swelling on the lower third of the neck on the left side, some centimetres in front of the scapular humeral joint over the jugular furrow. It was as large as a child's head, hard, adherent to the muscles and skin of the neck, and not painful. It had been treated as an abscess in course of formation by blisters, firing and seton, also by injection of iodine. Bugeon dismissed the possibility of actinomycosis as the pus was not at all characteristic. At the stage in which Mathis found it the skin was mortified and depilated over an area of 18×8 cm. Having removed the scab he thought he had to deal with actinomycosis or with one of those inflammatory growths caused by the pressure of the yoke upon the point of the shoulder. However, he found beneath the scab a growth the size of an hen's egg formed of dense connective tissue, except at its deepest part (corresponding to the muscular layer) where the seton had set up a purulent discharge and divided the growth in two.

The mass was composed of an agglomeration of hair tissue like an egagropill, surrounded by a small quantity of desquamation epithelium. There was a dermoid cyst in which the inflammation set up by the treatment had induced complete death of the hair, and which was encapsuled in a mass of neoform connective tissue.—*Soc. de Sc. Vét.*

F. E. P.

AFRICAN COAST FEVER.

In December, 1903, a Conference of authorities from the whole of South Africa was held at Bloemfontein to discuss the best methods of prevention and treatment of the diseases of animals causing great loss to the community. The different Colonies were represented by the chief experts in South Africa, assisted by political representatives from British, German, and Portugese territories. Among other subjects brought forward was African Coast Fever, and we extract from the proceedings the following interesting particulars. Veterinary-Colonel Flintoff, D.S.O., took the chair.

"The Chairman called on Professor Koch to address the Conference on African Coast Fever.

Professor Koch: I think it would be the better way to give you only an outline and so allow for some further free discussion.

Rhodesian redwater was thought by some people to be identical with Texas fever, or a combination of rinderpest and Texas fever. *I must say it is a specific disease, a new disease for this country. It is not rinderpest and it is not Texas fever.* It belongs to a class of diseases which we call malarial diseases which are caused by blood parasites and transferred by insects. To this group there belong a good many diseases in South Africa, for instance diseases in horses such as horse sickness and biliary fever, and now this new disease. In this disease we find specific germs which are quite different from those of other diseases and therefore we must assume it is a specific disease. I will not give you a description of the pathological changes and so forth. The microbe in most cases has a bacillary form; in many specimens it is, however, ring or oval shaped. This disease has not only a specific parasite but also specific symptoms. This disease is as I said a new one for this country, but it is not a new one for science. We have known this disease for seven years and know that it existed on the East Coast of Africa. I saw it seven years ago in German East Africa, and I am sure the Rhodesian is exactly the same; with the same parasites and the same characteristic symptoms, etc., that I found in German East Africa. I asked in German East Africa as to its existence, and I was told that it had existed there for many years. It is an old disease, how old I cannot say. I think it existed not only in German East Africa but also in Zanzibar, and I think it goes very far down on the East Coast. We found the specific parasites in blood preparation sent from East London. In preparations sent from Cape Town we could not find this parasite. As long as there was no movement of cattle from the infected coast to the interior the disease was unknown in Rhodesia, but on the movement of cattle from the coast it immediately appeared. A week ago I received a letter from a friend in German East Africa, and it gave me a very interesting description of the progress of the disease there. When I was in German East Africa seven years ago I could find it on the coast only, now we find it in the interior in a similar manner. I think it came from Beira into the interior of Rhodesia, and the cattle that pass from the coast and go into the interior are infected on the coast. For this reason I call this disease not Rhodesian fever, because it has not originated in Rhodesia, but East African Coast Fever. For instance Texas fever is so called because Texas is the home of the disease, therefore in a similar manner we must call this disease East African Coast fever. I am sure that it came to Rhodesia from Beira. You may know the origin of the first outbreak in Rhodesia. Some cattle from Australia landed at Beira in good condition but they could not get transport at once and therefore remained at Beira and became infected and subsequently infected the cattle of Rhodesia.

This disease is very difficult to recognise. You will find in the blood not only the specific germ of East Coast Fever but often another germ, that of the common redwater. We have here a combination of two diseases, and I would beg to distinguish sharply between the two, coast fever with a specific germ and Texas fever with another germ. The pear shaped germ of Texas fever is very easily recognised. *African coast fever in not infectious.* If you place an animal sick with rinderpest amongst clean cattle they will be infected at once, but you can place cattle affected with coast fever amongst clean cattle and you will find that they are not infected. There is no direct infection, but in common with other malarial diseases the disease is transmitted by insect agency. In this disease the agent for infection is the tick, of which there are numerous varieties.

The mortality of coast fever is a very high one. I was quite surprised when I saw the effects of an outbreak in farms in Rhodesia. Of the herds affected there remained only 10 per cent., therefore the loss was 90 per cent or more.

I have made observations on nearly 300 animals which we examined in a scientific manner. Amongst all these animals in the blood of which we found parasites accompanied by a high temperature only two recovered. I do not think there is any other cattle disease which has

such a high mortality. *The animals if they recover are absolutely immune.* The symptoms of the disease are not so characteristic that you can afford to dispense with a microscopical examination of the blood.

If we examine such recovered animals we find that there are pres ent some interesting features. We find that the animals are free from the disease, but they are not free from parasites. We find parasites in the blood, although very few of them. There is no similarity to rinderpest where you have after recovery a pure animal but in this disease we have immunity it is true, but I may say only a relative immunity. *The recovered animal will not become sick again, but such an animal still retains the parasites, and it will infect ticks which fasten on it.* Therefore recovered animals which look quite healthy are very dangerous. Texas Fever has the same property. You know that Texas cattle brought to certain parts of the United States infect healthy cattle. These cattle look quite healthy, but they are capable of spreading infection.

When we tried to get immunity to protect the cattle we followed the experience gained with artificial immunisation against Texas fever.

We injected doses of blood with intervals of one or two weeks for two or more months and then we found that we could infect animals by such repeated injections. It is well known to you that blood taken from a Texas fever case and injected into an animal produces not a very serious but a mild attack. In the same manner I used the blood of animals sick with Coast fever. I injected 5 c.c. and expected that after some days the animals would be feverish and show the parasite in the blood. They did not however react. I then injected 10 c.c. and 20 c.c. successively, all with a negative result, and at last I injected into a healthy animal 1000 c.c. of blood from a sick animal full of parasites. We used not only one kind of blood but mixed several samples, but still without result. This was very disappointing; it was a difficulty I did not expect. Then I tried different methods to infect the animals, repeated injections amongst others. We injected doses of blood for two or more months and then we found that we could infect animals with such repeated injections. If you give an animal one dose and after a week a second dose and then another dose, you will find that in most cases after three or four weeks such an animal has a very slight increase of temperature. We found that the morning temperature increased from 99 degrees to 101 or 102 degrees, and about two weeks after the second injection the parasites appeared in the blood of such animals. In many cases at first very few, and it wanted an experienced microscopist to find them; then they increased in number until we had a very mild form of the disease. Further experiments showed that if we repeated these injections for a longer period we could keep animals under the influence of the parasite and get increasing immunity; immunity which, as can be proved by experiments, begins after eight weeks, and such immunity is always increasing. But you will ask me how I can say that the animal is immune. We could not produce virulent disease by injections of blood, therefore we cannot prove it as we could in rinderpest. It is difficult to prove in this case. We can only do it by natural infection, and I experimented so long that I got conditions of natural infection. During winter time the infection is not great. The cattle will then run in the veldt for a very long time and not get sick. But I then put thousands of seed ticks on the veldt and then the animals became infected. On such an artificially infected veldt we could prove our immunised animals. For immunising purposes my intention is to find out the best method and the means for obtaining the best blood.

We could immunise with any blood which had parasites, especially with the blood of animals which never had the disease naturally. I injected animals with blood containing the parasites, and when the parasites appeared I took the blood and injected it into other animals. I did this up to the sixth of the series and could immunise every single animal. We are at present in possession of methods to prevent the disease, but only to a certain extent. For instance, we can protect by artificial immunisation a farm or district or Colony, but the immunised animals of those areas will always be a danger to their neighbours. You must remember it is the same with this disease as with Texas fever and not as rinderpest. *If you protect animals against Texas fever they are in the same condition as recovered animal and are a source of danger.* What is now to be done against such a disease? I am sure under the present conditions of trekking and communication that the disease will spread throughout South Africa. Recovered animals in which the disease can only be detected by microscopic examination by an expert will come into your country and upon your farms, and infect your cattle. I do not think it is advisable to carry out quarantine regulations against this disease. They would no doubt stop it for a time, but there would be considerable expense and the disease would come after all. I think it is better to bring the country, not immediately but when the danger is very near, under the same conditions as are found in Texas and Queensland in relation to Texas fever. *By this I mean we must infect all animals with the parasites so that there will be as little loss as possible.* This can be done by the protective inoculation now adopted. I would advise everyone who is not too near being visited by the disease to wait. This disease will not, as rinderpest, sweep over the country like a wave taking away thousands and thousands of animals. It comes slowly but very surely and kills 90 per cent. of the animals. But time must not be lost if your neighbour has the disease on his farm or if the first case has occurred on yours. In Rhodesia we have begun preventive inoculation, but only in infected places, as we have no right to infect the animals on a healthy farm if the owner does not wish it. We, however, infected a good many clean herds at the desire of the owners I would advise you in the same manner when the infection has broken out to immunize as soon as possible because immunity comes slowly and you will lose too many animals. You will, however, save a good many of them by an early immunisation. Cattle on farms lying in the middle of an infected district should be immunised. In this manner we may hope that in some years South Africa will be in respect of this disease in the same condition as it is now for Texas fever. Texas fever has now been in South Africa for 40 or 50 years or longer. When I first visited the country it was not so common as now. It went through the whole of the country and the country became immune. In the same way South Africa will become immune from this disease in a certain time. But we can make it so in a very short time in an artificial way with very small loss (loud applause).

Dr. THEILER believed Prof. Koch drew the prospect too black when he said the disease would travel through the whole of South Africa.

He believed it would be limited to the areas in which at present ordinary redwater was found. In Basutoland and the Highveldt of the Transvaal and other places where no ordinary redwater existed, the Rhodesian tick fever would not get a hold, and if it did it would quickly die out again. Professor Koch had told them that the agent was the tick, but he had not told them the kind of tick. He wanted this point settled, because it was a very important point for them in the Transvaal. The blue tick up to the present time in every experiment undertaken by them had not been proved to be the agent conveying the disease, but it was demonstrated by Mr. Lounsbury in the Cape Colony that it was produced by

the adult brown tick. And they in the Transvaal found that nymphæ of the brown tick which have been feeding as larvæ carried the infection also.

He was not sure whether Professor Koch would agree to this, but he believed personally that the blue tick did not convey the disease. It was a most important question for them in the Transvaal, for the blue tick was one most frequently met with there and existed even in parts of the Highveldt. He had observed that in the Highveldt of the Transvaal where outbreaks of African Coast fever occurred there was no second outbreak. He saw a difficulty about the inoculation recommended by Prof. Koch. Prof. Koch had said himself the previous day that the injection of defibrinated blood for rinderpest was sometimes followed by other diseases. In this instance also if defibrinated blood had to be used the same thing would happen, and whilst immunity against Rhodesian redwater would be conferred other diseases like heartwater, ordinary redwater, and trypanasomas would follow. The time had not arrived to start inoculation in the Transvaal, and they did not intend to do anything else, before obtaining more experience, than to isolate outbreaks, and for that purpose they strongly recommended the fencing in of farms. The tick did not travel and a fence was a good barrier against the inroads of the infection.

Professor Koch said that a salted animal kept the infection in his blood and that the ticks which dropped off acted as carriers of the disease. He admitted that such a thing was theoretically right, but an experiment which they had made by exposing salted animals together with non-salted animals had failed to produce the disease in the latter although these animals had been running together for nine months, having therefore had ample time to drop ticks and mature even two or three generations. This indicates that salted animals do not under all circumstances produce the disease, or if so only under certain conditions which are not yet known.

Dr. Koch said that he found the germs of Coast fever in cattle from East London. He was informed in Beira that the disease had been known there for a long time. Cattle from Madagascar became sick on arrival at Beira. Also cattle on other parts of the East Coast sickened. There must evidently be considerable infection on the coast, but he would not dwell on that point again as he had already dealt with it. It was, however, necessary in all experiments for producing the disease by ticks to have careful microscopic examination.

He would only dwell upon those tick experiments which had given a conclusive result. He had five distinct cases in which he had produced Coast fever in animals which had not come in contact with any infected veldt. He placed a few ticks on certain animals, and in the five cases mentioned he had produced the disease. He had only got these results with the blue tick and therefore he was of opinion that the blue tick was of most importance in spreading the disease. He would not say other ticks did not carry the disease, but he had never been able to produce infection with any but the blue tick. He had strong proof of his opinion but still he would not be positive.

The disease produced at Cape Town by the agency of the brown ticks was not necessarily conclusive. Only one case was not sufficient, and they must produce it in every case, when they could say the brown tick was the disease producing agent.

He went on to say that Dr. Theiler thought inoculation was not necessary and had instanced the fact that blood inoculation in the case of rinderpest produced other diseases. They could not compare this blood injection with the blood injection in rinderpest. Conditions in East Coast fever were wholly different because the animals could be examined microscopically, and those which were free from other diseases selected for delivering the blood.

Then with regard to the recovered animals, he would ask what Dr. Thieler proposed to do with them. They were infectious as long as they lived and therefore they would have to quarantine such animals for years. He did not think this was practicable. There was no parallel to rinderpest in this disease. In Rinderpest the germs of infection died out in a few weeks, but it was not so in the case of Coast fever. They would have to isolate for five or six years. Again, Dr. Theiler contended that the ticks died. He (Professor Koch) did not think so; they lived on the contrary for a considerable period. For instance game carried the blue tick. The blue tick was also found on horses, goats, sheep, hares, and so on, therefore they would have to destroy all living animals on a farm, and keep up the quarantine for years and years before the infection could be stamped out. He had put young ticks on grass five months ago, and they were living yet. He did not know how long they would continue to live but he thought they would not die in a short time. In America and Australia many attempts had been made to destroy the ticks, but he trusted such a hopeless task would not be attempted here.

Dr. Theiler said, in reply, that he wished to make some points a little clearer with regard to the parasites Prof. Koch found in the blood of cattle coming from East London and Natal, and he was of opinion that it was not East Coast fever.

At repeated intervals cattle were brought up to the Transvaal from East London and the adjoining districts and also from Natal, but up to the present no outbreaks of Rhodesian Tick Fever had been observed to be connected with these importations.

On the other hand cattle which were landed in Delagoa Bay during the last two years brought the disease with them to the Transvaal.

The disease now prevalent there was East Coast Fever, but he did not agree with Professor Koch who was of opinion that the East Coast had constantly been infected. This disease had never been observed on the Coast of Delagoa Bay in earlier times. Cattle brought up on the Coast died as rapidly of the new disease as cattle which were brought down from the Highveldt.

With regard to the piroplasma they had made a similar observation in outbreaks of severe ordinary redwater, and other diseases which could in no way be traced in connection with Rhodesian tick fever. He believed it to be a new species of piroplasma and that it had nothing to do with East Coast fever.

With regard to the isolation of farms he said it was not exactly their intention to destroy the ticks but to prevent them from becoming infected, by removing the cattle until the infection had died out.

If, as Professor Koch believed, the blue tick was the principal carrier of the disease, then the chances of getting rid of the disease would be more hopeful as the blue tick undergoes all its changes on one and the same animal, and accordingly if they stocked an infected farm with animals other than cattle, such animals would certainly harbour the ticks again, but as they were not susceptible to the disease, the tick must become purified.

Dr. Amalal Leal said that the disease was not endemic on the Portuguese coast, but that it was brought from the German coast or Zanzibar first to Beira and afterwards to Lourenco Marques. The first animals that died at Lourenco Marques were Madagascar cattle infected at Beira and brought to Delagoa Bay; out of 25, 15 died on the way, the remainder on shore.

Some months after, some cattle which were brought from the German coast by a Boer named Meyer spread the disease; part of the cattle which he brought died at Lourenco Marques, and the remainder being sent to the Transvaal spread the East Coast Fever in both countries.

Only part of the Portuguese territory was infected. The infected area was part of Lourenco Marques district, the south part of Gazaland, and Beira. The parts most badly infected being the town of Lourenco Marques, and the Swaziland border where he saw only 40 head alive out of one herd of 700, which he had seen two months before in good condition. Infection from any particular district could, he thought, be only prevented by stopping all movement of cattle from that district and it would be absolutely impossible to get South Africa clear of sickness amongst stock unless concerted and careful measures were taken immediately by the different Governments.

Mr. STOCKMAN said they were trying to work out a method of giving immunity against diseases caused by animal parasites on purely the same lines as those worked out for vegetable parasites or bacteria. He was inclined to think that much success could not be hoped for by these methods. He believed that the supposed immunity conferred by such methods in certain parasitic diseases was not an immunity at all in the proper sense of the word. It was rather to be looked upon as a tolerance of infection, and was best expressed by the popular term "salted." This condition of tolerance could be overcome by subjecting the animals to lowering conditions such as they frequently experienced in this country. Even an animal which had become naturally salted to ordinary redwater might die of the disease in one of its forms, if subjected to lowering influences. There were two opinions regarding the question of whether animals salted to Rhodesian tick fever are capable of infecting ticks.

In the Transvaal they had the observation that certain recovered cattle had been grazing along with others for nearly a year on fresh ground, and no outbreak had occurred. Personally he had considered that the small percentage of animals which recovered were incapable of spreading infection, until he had seen Dr. Koch's statement on this important matter. In view of that statement he thought that the question must be considered as still *sub judice*. Dr. Koch, however, after explaining that cattle inoculated with the blood of recovered animals were capable of infecting ticks, advised them to carry out this inoculation. If Dr. Koch's opinion on the question of infection were correct what would inoculation mean? It would mean that once a man infected his cattle by the inoculation method, his neighbours would have to do the same in order to protect themselves, and the disease would run right through the country. Not only would all the cattle in the country have to pay tribute to it, but all imported cattle would have to do the same. This was a serious question. Already imported stock had to pay tribute to ordinary redwater which was established in permanency, and he could not recommend his Government to adopt inoculation and add another permanent plague, especially in the present condition of the country. The Transvaal was not yet nearly stocked with cattle. A large number of cattle had still to be imported. The mortality amongst the affected was about 95 per cent., and even the protective effect of the inoculation had still to be demonstrated. In the Transvaal a record was kept of every infected farm and road, together with the date of the first outbreak. All infected farms were quarantined. No cattle were allowed to be moved except by permit. The object of the permit system was to make the applicant state whither he was moving his cattle, so that it could be laid down that he must steer clear of dangerous ground. If any movement was considered too dangerous it was refused. Infected roads were placarded. As a further precaution the person moving the cattle had to have the animals sprayed every eight days with an arsenical dip or paraffin. He never dreamt that these tactics were going to stamp out the disease, as they were purely defensive. They had, however, produced a very marked decrease in the number of new farms becoming infected every month. The object in introducing them was to check the rapid spread of the disease until a weapon could be found wherewith to attack it. The only promising method he could see at present of stamping out the disease was to fence in infected ground so that no cattle could be driven, or stray thereon. He believed that infected ground could be purified by removing all cattle for a certain period, and he hoped that experiments which he and his colleague Dr. Theiler were conducting would demonstrate the exact time necessary to bring this about. Outside the infected area they had abundance of land to carry on all the farming operations necessary while the infected farms were being left to purify. They had the observations of generations of experienced farmers, for example, that the ticks did not flourish on the High Veldt, and although they had had outbreaks there, the disease had not gained a footing. At the worst stock raising might be confined to the High Veldt for a time.

Dr. KOCH said that Mr. Stockman has raised an objection which was a very important one, viz., as regarded the inoculation of animals. When animals were introduced anew into the country they should all be inoculated. The same difficulty existed before under other circumstances. If the animals were for instance new to the country they should all be inoculated first of all for common redwater. In Rhodesia nearly all the cattle were immune against the common redwater and therefore all new cattle must be only inoculated against Coast fever. They had now inoculated many cattle, and they had never experienced any great loss from the injection of blood.

He would prefer if possible to stamp out the disease altogether rather than go in for preventive inoculation. This could be done by killing all the animals which had the parasites in their blood. But how were they to do that in the native territories? Mr. Gray would tell them that in Rhodesia it was quite impossible. The natives would object to the slaughter of their stock, but he thought they were very unlikely to object to the process of inoculation. At first the natives of Rhodesia did not like inoculation, but after a time they could not find sufficient serum to inoculate their stock so great were the numbers of natives who brought cattle for inoculation.

Dr. THEILER asked Prof. Koch at what period immunity began.

Professor KOCH said that as far as his experience went, immunity began six or eight weeks after the first injection, but cases differed. They would understand his experiments were not yet definite. They had not reached finality. Whether they must stop injections after six months or so he could not yet say. If they continued to inject for some time even there was little fear of the animal being infected, but at present he thought it was better to inject for a long period than to cease injections too early.

Mr. C. E. GRAY suggested that it would be better to pass a resolution recommending the different Governments to grant facilities to farmers in the way of fencing in order to keep out this disease. He thought the present arrangements were insufficient to secure absolute isolation of stock. They ought to encourage farmers to fence, and in the meantime he would strongly advocate inoculation ahead of the disease particularly in the neighbourhood of infected areas. He was afraid they must accept the inevitable and look forward to the time when the disease would be amongst them. They must not think because the disease had not spread that it was asleep. He mentioned that at present in Rhodesia the movement of cattle was forbidden in infected areas,

whilst systematic dipping was enforced. They had never traced the communication of the infection to any other animals than cattle.

Dr. THEILER said it must be distinctly understood that they had no objection to inoculation on infected farms, but on the other hand they had the experience that the cattle would probably die before the inoculation had any effect. Their experience was that wherever the disease broke out at a farm it usually carried the cattle off within a very short time, and he therefore did not see the use of the inoculation at present with a method that gives so late immunity.

Taking this experience into consideration and seeing that the immunity at present only comes as late as from seven to eight weeks, the application of Professor Koch's inoculating method (which they hoped would improve in time) would very soon be condemned by cattle owners, and before they really had a chance to ascertain its value.

Mr. GRAY said that when one farm was infected he thought it high time for the cattle on the next farm to be inoculated. He thought there was no doubt that inoculation was useful. Continuing, he said that the arguments advanced were all in favour of inoculation. If it immunised at all it certainly must be of advantage.

Dr. KOCH said that by the constant spread of the disease they were certainly warned of the necessity of inoculation.

The CHAIRMAN asked Dr. Koch to explain his method of inoculation.

Professor KOCH referred Col. Flintoff to his printed report.

Mr. GRAY, in reply to Dr. Hutcheon, said that in Rhodesia they endeavoured to arrest all movements of stock in districts where the disease existed, and any animals remaining and travelling upon any of the roads had to be dipped at certain points.

With regard to inoculation, the general plan was to inoculate in a circular manner round the centre of infection. A radius of 25 miles was about as far as they got from each particular centre.

Dr. HUTCHEON said he was sure they were very much obliged to Dr. Koch and that they had gathered a good deal of information from the ensuing discussions. They had had ordinary redwater in the Cape Colony for years but they never to his knowledge had a case of the Coast fever now under discussion. If they prohibited all movement and transport of cattle, except in districts which were clear of the disease under discussion, they would he thought see an end of the disease.

He would certainly recommend that they should encourage fencing; however great and effective their other preventive measures might be, fencing certainly was a most necessary policy and would help them in stamping out the disease. He hoped in the future they would arrive at some certain and effective measure of preventing the spread of this fell disease.

Mr. GRAY said that he did not of course recommend indiscriminate inoculation but it was necessary to inoculate so as to keep ahead of the disease.

Dr. HUTCHEON said he did not say anything about the principle of inoculation, but he would like to know a little more about it.

Col. PANZERA said that in the North of Bechuanaland they had been fighting redwater for the last 14 months and described the measures taken; the Bechuanaland Protectorate was about 400,000 square miles in extent. The speaker showed by means of a sketch the position of the borders to be guarded. All stock coming into the Transvaal from the West had to pass over their territory and therefore their position was one of importance.

The only thing he thought they could do at present was to guard the open Northern and Eastern Boundaries between the Protectorate and Rhodesia and that abutting on the Transvaal. From the position of the Bechuanaland Protectorate he feared that it might be the next territory to be infected. They would wait till some definite result had been arrived at as it was impossible to commence inoculation at present. Considering that the result of such inoculation would be to destroy the area as an export country for some years he would be very glad if someone would suggest any further measures beyond those described by him which they could take to arrest the inroads of disease.

Mr. GRAY said he should certainly continue all the precautions the Bechuanaland Government were taking at present, but he certainly would not advise them to wait very long before inoculating

Dr. PITCHFORD said there were only one or two points on which he wanted information, but they were of a technical rather than a practical nature, and as time was running on he would defer them till later.

Mr. WOOLLATT said that they prohibited all cattle from the North from crossing their border, and other stock was only permitted to enter Natal, from the North, at certain ports of entry after being dipped. He was pleased to hear what Mr. Gray and Dr. Hutcheon had said because they were pursuing a very active policy in that direction. Dr. Koch had stated that this disease existed along the whole of the East Coast of Africa imputing that it had probably been taken to the Transvaal by cattle coming through Durban. No East Coast fever existed along the Coast of Natal. Cattle had for years past been taken from the Coast Districts of Natal into the Transvaal and no outbreaks of this disease had occurred as a result. The Coast cattle from Natal taken to Rhodesia died there of East Coast fever. He thought that quarantine regulations were essential, but they would not be complete unless they provided for recovered animals. No recovered animal should be allowed to leave an infected area. The Natal Law was framed to provide for the destruction, with payment of compensation, of any animal thought necessary, and recovered animals should be destroyed rather than be allowed to leave an infected area. Provision was also made to enforce compulsory inoculation when the practical value of this had been shown.

Colonel PANZERA said the term "High Veldt" had been used. He would like to ask any member of the Conference if he could define the expression "High Veldt."

Dr. HUTCHEON said the expression would be applied to districts of such an altitude that the frosts would be severe enough to kill the ticks.

Colonel PANZERA said it was necessary to have trucks conveying cattle by rail properly disinfected, and they all knew the practical difficulties of ending such disinfection. He considered that conveyance of cattle by rail from infected areas should be rigidly prohibited.

The CHAIRMAN said he believed the laws of the Orange River Colony provided for the disinfection of trucks in every case.

Herr VON LINDEQUIST hoped their neighbours in British Bechuanaland would try to keep out the disease both from their own and from German Territory. If it were coming they would in German South West Africa do as Mr. Gray suggested and inoculate beforehand.

Dr. PITCHFORD said there was a question he would like to ask Dr. Koch, namely: "Was the early Dar-es-Salaam disease referred to by Professor Koch identical in all respects with the existing Rhodesian disease?"

The learned Professor had stated during the course of his remarks that the differential features of the two diseases microscopically were "very easily recognised."

Writing from Dar-es-Salaam some six or seven years ago he stated that the disease existent there was Texas fever. Might he ask if this term was intended to sug

gest the existence of a hæmatozoal disease simply, the term "Texas fever" being used rather in a generic than an exact sense.

He was responsible at the request of his Government not for investigating, but for observing the nature of the disease existent in Rhodesia at its outbreak and basing an opinion as to the exact nature of this disease upon that observation. He might say that the differential points upon which the Professor justly laid such stress were fully recognised at the time that the disease first came under the observation of himself and others.

If the microscopical differences were now "very easily recognised" he presumed that they could hardly have been so obvious at the Dar-es-Salaam outbreak. He was anxious to avoid any controversial discussion, but thought it probable that Professor Koch had good reason for his alteration of opinion and therefore he was asking him the question: "Was the Dar-es-Salaam outbreak identical with the present disease?"

Dr. KOCH explained the matter fully. He said at the time he made his report (1897) it was not so easy to distinguish between the two diseases as now and an error was at that date excusable. He had made the mistake of thinking that the small sized parasites were the young of the pear shaped ones.

Dr. THEILER said when the new disease broke out in Rhodesia everybody was under the impression that it was ordinary redwater in a very virulent form. As a matter of fact the first investigators in Rhodesia, Messrs. Gray and Robertson described it in their reports as Texas Fever. Specimens were sent to Laveran and Nocard in Paris and these famous authorities also declared the disease to be Texas fever.

It was only after experiments made at Nelspruit where they exposed cattle highly immune against ordinary redwater that they came to the conclusion it must be a new disease.

Mr. STOCKMAN then read his resolution which he further amended as follows:

(7) "That this Conference is of opinion that the fencing of farms is one of the best methods to prevent the spread of contagious disease, and that Governments should be recommended to carry it out immediately on all farms where African Coast fever has broken out."

Seconded by Dr. Pitchford and carried.

Mr. WOOLLATT put a resolution as follows:—

(9) "In cases of isolated outbreaks of the disease the whole of the infected cattle to be destroyed (with payment of compensation) the infected veldt quarantined and fenced, and the cattle in the immediate vicinity dipped or cleansed from ticks."

Seconded by Dr. Pitchford and carried by a majority of three—8 for, 5 against.

The CHAIRMAN wished to know if any member had any more resolutions to put forward on the subject.

Dr. HUTCHEON said he need hardly say how much they were indebted to Prof. Koch for his instructive address that morning on African Coast fever. They were also indebted to him for devising a measure by which they could mitigate this terrible plague should it make a still fuether advance into Colonies as yet untouched. They would await the result of Professor Koch's labours with interest and would be glad if the best means could be arrived at for the eradication of the disease, should it unfortunately cross their borders. He moved a vote of thanks to Dr. Koch for his kindness in addressing them and the manner in which he had submitted to their criticisms that day. (Applause).

Mr. STOCKMAN seconded. The vote of thanks was pased unanimously amid applause.

THE REPORT OF THE SHEEP-DIP COMMISSION.

The chief importance to chemists of the Report of the Departmental Committee on Sheep-dipping lies, as was remarked in *The Pharmaceutical Journal* a few weeks ago in the fact that it will in all probability be used by the Board of Agriculture as an additional weapon with which to enforce the demand that sheep-dips now scheduled as poisons shall be released from the restrictions imposed by the Pharmacy Act. It therefore becomes necessary, especially in view of the well-known fallibility of Departmental Committees on technical subjects, that the recommendations of the Sheep-dipping Committee, and the evidence on which those recommendations purport to be based, should be somewhat closely examined. The Committee caused certain dipping experiments to be conducted by Prof. Winter, and relied entirely on those experiments. Will it be believed that not one of the experiments took place under the ordinary conditions of sheep-dipping, but that every one took place "in the long fleece"? Yet the results of these experiments—which, at best, were few and perfunctory—were preferred in several important respects to the known opinions of many practical men who have spent their days in arriving at the best methods of dipping. The *Farmer and Stockbreeder* remarks that "the person responsible for the dippings deliberately adopted the best means to render them abortive." Not a single sheep was dipped shortly after shearing, the time which all practical men know to be the most effective for protection against disease. The Committee states that they are satisfied that one dipping will cure scab; but on turning to the evidence one finds that fourteen witnesses, as well as two members of the Committee who sign the report, are emphatic in stating a second dipping to be absolutely necessary. All expert writers and Government officials have been unanimous on this point, and no one except the persons engaged in the experiments agrees with the "one-dipping" recommendation. This suggests a conclusion which is written large in other parts of the report, that the views there given represent neither the opinions of the practical men nor of the scientific men on the Committee, but are a compromise between the two. Professor Winter says one dipping is sufficient; two members of the Committee and fourteen witnesses say it is not, but the Professor prevails. The recommendations and the experiments on these points alike fail to carry any conviction, simply because none of the colonial and foreign authorities, who eradicated scab from Australia, and are now engaged with the same operation in South Africa, was called, nor any of the dip-makers whose business it is to understand these subjects. In their place, as a contemporary points out, is a number of British farmers, whose high position actually disqualifies them from speaking with authority, inasmuch as they keep their flocks clean, and therefore know very little, in a practical way, about either the disease or its cure. All this is, of course, extremely unfortunate. It is much to be hoped that the Board of Agriculture, which will have the responsibility of framing any proposals based upon the report, will have sufficent judgment to winnow out the wheat from the chaff, and to act in consultation with those who are practically acquainted with the subject, in the endeavour to produce a workable scheme. What, however, will probably strike the chemist most forcibly is the similarity of the methods adopted by this Committee and by the Committee on Poisons which reported last year. In both cases the recommendations are against the weight of evidence, and in both cases witnesses with practical knowledge of the subject under inquiry appear to have been avoided with a discrimination little short of the marvellous.—*The Pharmaceutical Journal.*

GLANDERS OUTBREAK AT FELIXSTOWE.

An adjourned special meeting, for the purpose mainly of considering the outbreak of glanders in Suffolk, was held on Tuesday afternoon at the County Hall, Ipswich. Mr. O. D. Johnson presided.

The first business was to receive reports as to action taken in regard to outbreaks of glanders dealt with by the Committee on Friday last.—The Clerk said it was the duty of the Veterinary Inspector in charge of the case to make a report every Saturday, and Mr. William Turtill, the Inspector, presented a report of last Saturday as to Mr. C. H. Churchman's animals at Felixstowe. This was to the effect that there were then nine animals on the premises, of which five were healthy. One of the other four had since died, and the others were destroyed on Monday by order of the local Authority.

Mr. Turtill said Mr. Churchman was very anxious to get the horses which did not respond to the mallein test to work.

The Clerk: But the Committee want to prevent further disease. Has anything been done as to disinfection?

Mr. Turtill: It has been carried out very satisfactorily; the man is very anxious to do all he can.

The Chairman: It must be some considerable time before you can guarantee the remaining five free from disease.

Mr. Wakelin said they should be isolated a month.

In answer to the Chairman, Mr. Turtill said the harness had undergone a thorough preparation of disinfection.

Mr. Wakelin: What has been done with the manure?

Mr. Turtill: It has been buried with lime.—Questioned by Mr. Fiske, the Inspector said mallein only reacted on horses affected with glanders.

Mr. F. Gittus: Can you say where the disease originated?

Mr. Turtill: I believe it was taken from a horse which Mr. Churchman purchased in London; it kicked, and died very quickly.

The Chairman: You can't keep a horse to itself and work it in the public streets. He thought it was an acknowledged fact that glanders might develop in a longer period than one month.

Mr. Henry Phillips, one of the veterinary inspectors, said it might lie dormant for six or seven years.

Mr. Everett: When the disease is undeveloped would it be dangerous to other horses?

Mr. Phillips: Not unless it lived in a stable with others for a long time.

The Chairman asked Mr. Turtill to report again as to what had been done, so that it could be discussed at the next meeting on October 8th. Meanwhile, the Committee decided the healthy animals on Mr. Churchman's premises were to be kept isolated.

Reporting upon further cases, Mr. Turtill said that nearly all the infected horses were those which had been used in brakes. The cab horses, and the ordinary horses that ran single, had not suffered. The men who ran brakes worked together, and their horses were thrown together.

With regard to Mr. Branton's horses, it was stated that there had been no disease on his place. The horse belonging to him, which was affected with farcy, a form of glanders, was on the premises of the Angel, while the two associated with it there were apparently healthy and had withstood the test. They had been turned out on a meadow which adjoined the road, but was separated from it by a high fence.—It was recommended that hurdles should be placed across the inside of the gateway, so that the horses could not come into contact with others in the road.

In connection with this and with other cases, Mr. Gittus urged that it was necessary to destroy or thoroughly disinfect the clothes of the men who attended horses suffering from the disease. In such a case as Mr. Branton's, he asked, was it not probable that that owner's men had looked after the animals at the Angel as well as after those on his own premises.—After some discussion, Mr. H. F. Harwood said it was obvious that there might be considerable danger from this source. So far as they knew, the death which had occurred in Ipswich was caused by the saliva from one of these horses, and it was obvious that the saliva would be constantly on the clothes of men who fed horses. He proposed that the clothes of men who had had charge of diseased horses should be thoroughly disinfected.—Mr. Gittus seconded the motion.—Mr. Gostling said he thought the clothes should be burnt.—The Clerk raised a question as to whether the Committee could enforce a resolution of this kind; clothing was not a "utensil." (Laughter.) The Chairman said that any sensible owner of horses would be ready to take such a precaution, and the Committee decided to pass the resolution.

With regard to Mr. Albert Gorham's horses at Felixstowe, it was reported that all three had been killed; but Mr. Turtill said that seven or eight horses belonging to his father (Mr. G. H. Gorham) were under the roof of the same stable, though there was a boarded partition between the two divisions.—Under these circumstances it was suggested that Mr. G. H. Gorham's horses should be prevented from coming into contact with others.—Mr. Turtill said that Mr. G. H. Gorman was a carrier, and it should be remembered that he had had no infected horses.—Mr. Gittus: It would pay to give him something to keep the horses at home rather than allow him to take the disease about the country.—The Committee decided that there was cause to "suspect" Mr. G. H. Gorham's horses, and that they should not be worked, except at the owner's risk, until a further report was made to the next meeting on October 8th.

In another instance, it was said that one owner had taken care to isolate a horse which was suffering from disease, although no report had been made as to the animal's condition.—The Chairman said he could not help thinking that there had been a great laxity on the part of the owners of horses in not having reported the existence of this disease.—A further report showed Mr. A. Thurston, cab proprietor, Old Felixstowe, had lost one horse, but the others showed no signs of infection. Three of this owner's horses had been sent out for winter keep.—"meat for manners"—one at Kirton and two at Crowfield, and it was resolved that these should be seen and inspected.

The Resumed Inquest.

At Ipswich Town Hall on Monday afternoon the inquest was resumed on Edward Rogers, an ostler, aged 42 years, of Camden Road, Ipswich, who died on the 25th September, in the Borough Fever Hospital. At the first inquiry the fact was established that the deceased died from glanders, and the inquest was adjourned in order to obtain the evidence of Mr. Walter Turtill, veterinary surgeon, of Ashbocking, who was first called in to attend the glandered horses of Mr. C. H. Churchman, of Felixstowe, before the nature of the disease was known. Rogers had for a time been employed by Mr. Churchman.—Mr. A. S. Leighton again represented Mr. Churchman.

Walter James Turtill said he first went down to see Mr. Churchman's horses on July 22nd at his request, and he also went on the 30th July and August 5th. He had no idea of glanders at all up to that time. He was not called to attend any ill horses. He went to see a bay horse that had been kicked, or had been supposed to have been kicked. After he had looked at the injured horse Mr. Churchman drew his attention to a grey horse

that was suffering from a saddle gall. He dressed the sore of the grey horse, and left a bottle of dressing for it. On his second visit, Churchman called his attention to another bay horse, which was looking rather "staring" in the coat, and he thought it was suffering from worms. He prescribed for it. He was also shown a chestnut mare, which was suffering from a sore shoulder. On his visit on August 5th he only saw the bay horse that he was called to attend in the first instance. He applied a blister to its injured "elbow." He saw no sign of glanders in any of the four horses, and was never asked to look at any other horses. On his last visit he asked after the horse he had attended to on his previous visits, and was told that they were all right and out at work. If any of those four horses had had glanders, he would have seen it. Glanders, however, was an obscure disease in its early stages. It might be dormant in a horse's system for some considerable time. It was a disease very uncommon to country horses, but was fairly common in London. He had never treated any horse for glanders, but had seen several cases. His man went on August 12th.

By the Foreman (Mr. Tunmer): He did not know whether any of the horses he saw had since died of glanders.

A Juryman: You say you have never treated horses for glanders, but you have seen them. Under what circumstances have you seen them?—As soon as we were satisfied that a horse was glandered, we had it killed, before the Act was passed. In answer to further questions, he said that he had never treated a horse for glanders, he always recommended his client to have it killed. In his opinion there was no cure for glanders.

By Mr. Leighton: He did not see a horse that was blind of one eye that had bumps. He did not tell Mr. Churchman that its blood was out of order. He was not shown a brown gelding. He did not say such a horse was suffering from influenza. To say that he did was all invention. He did not give that horse any liniment. His man's name was Wright. He was not a qualified man, but had been "born and bred in the business." He did not know that the horse that was blind had been "shot for glanders." Mr. Churchman was a man who would rather have a horse shot than doctor it.

Walter Wright, assistant to Mr. Walter Turtill, said he first went to Felixstowe to Mr. Churchman's on the 30th July. He went with Mr. Walter Turtill to see a horse with an injured elbow. He also saw a horse with an injured back, and gave another horse a dose of physic for worms. He went again with Mr. Turtill on August 5th, and only saw the horse with the injured elbow that time. He went alone on August 12th and saw the lame horse. After he had left the premises he was called back by Mr. Churchman to look at a new horse, which was suffering, in his opinion, from a severe sore throat. He gave that horse some medicine, and left some liniment for it. He had been assistant to Mr. Turtill for the last five years. He was the son of a qualified veterinary surgeon and cattle inspector. He had only seen one case of glanders. That was a gipsy's horse on Middleton Moor, seven years ago. He could tell a case of glanders if he saw it. He saw no sign of glanders in the horses he saw at Mr. Churchman's. He then, at the Coroner's request, described some of the symptoms of glanders. He did not express any opinion with regard to any of the horses on the 12th August different to what Mr. Turtill had expressed.

The Coroner: Can you reconcile your statement that you should know glanders when you saw it, with the fact that the four horses were clinically glandered, and must have been so for two or three months?—I did not notice any glanders in those horses.

In answer to further questions, he said that on the 15th August he learned from Mr. Churchman that "the ill horse" had died, and that he had had the injured horse destroyed.

By Mr. Leighton: He did not see a horse blind of one eye that had bumps on it. The horse that died, he should think, died from debility. He did not ask what the horse died from. It had been neglected, or had only had Mr. Churchman's own treatment.

William Turtill, veterinary surgeon, of Wickham Market, said he was inspector for the Woodbridge Division of the county of Suffolk, appointed by the Executive Committee of the County Council. He described how he was called upon by the Clerk to the County Council to visit Mr. Churchman's premises on the 17th September, to see "a suspicious case of glanders." He saw 13 horses, of which four were clinically glandered. There were others which, in his opinion, were suffering from glanders, but not showing pronounced symptoms. The horses that were clinically glandered must have shown signs of it for a month or six weeks. It might have been longer, but not less than that. Mr. Churchman consented to have these horses slaughtered at once, but one of them died the next day. He went again on the Monday, and tested the other horses, with Mr. Jurgensen's assistance, by the mallein test. Three of them were shown to be glandered. He had seen many cases of glanders, but never treated them. He reported them, and had them shot. Anyone seeing the four horses that he described as clinically glandered must have seen there was something seriously wrong with them, and to anyone not trained it must have seemed mysterious. One was practically covered with abscesses. A horse clinically glandered suffered great pain and wasted away very rapidly. In the early stages of glanders an untrained person might mistake it for influenza. There could be no mistaking the four he saw. He had never seen a horse case of glanders. He expressed his surprise to Mr. Churchman that he found the horses in such an advanced stage of the disease.

By a Juryman: All the four horses he saw at first clinically glandered were bays. Had he seen those horses a month before he would have known they were glandered. He could not say that a novice would have known. He should have thought that anyone with any knowledge of horses would have seen sufficient was wrong to have called in a veterinary surgeon.

Charles Henry Churchman, said he had been carrying on business as a jobmaster for over twenty years. He called in Mr. Walter Turtill to see his horses in July. He showed him a blind bay gelding and a grey one. There were some bumps about the bay gelding, and Mr. Turtill said it was the heat of the blood. On the grey was a sore on the back from the saddle. He showed him another bay gelding that had been kicked, and he showed him a brown gelding which had symptoms of a severe cold. His man gave it a ball, and gave him some stuff to rub on. There was another which had a sore place on the neck. The blind bay had been shot for glanders, the brown gelding died from pleurisy, so the horse slaughterer said. Until he called in Mr. Jurgensen he had no idea his horses were suffering from any infectious or contagious disease. He had carried out to the letter the instructions of the three veterinary surgeons who had been on his premises.

By the Coroner: He always gave a horse a ball with what they called a "popgun." He would not have asked a man to give the ball by hand. He had found out there was something radically wrong, but whether there was or not he would never give a horse a ball by hand. After having had Dr. Rygate's evidence read over, in which he said that the deceased told him that "he was asked, as a favour, by Mr. Churchman to give the balls before he left," witness still denied that he had any recollection of having asked the man to administer the balls.

The Coroner pointed out that the man used almost the same words to his wife.

Mr. Leighton: It may be that he did give the horse a ball.

Witness: It may be so.

The Coroner: Did you instruct him?

Witness: I don't remember giving him instructions to give any horse a ball.

The Coroner: Do you remember five horses being ailing on the morning of the 5th September?—I can't say.

The Coroner: Do you recollect, as a matter of fact, whether medicine was given to a horse that morning?—I don't know. I can't say.

Mr. Leighton: Have you ever seen a case of glanders before?—Never.

The Foreman: Don't you think it was rather a long time to wait between the last of Mr. Turtill's visits and when you called in Mr. Jurgensen?—I didn't know Mr. Turtill had done coming to attend to my horses. I never told him not to come.

Witness having stated that there were horse balls in the stable, kept in a pail, a juryman said it was rather strange that he should have had them if he was depending on Mr. Turtill.

Mr. Jurgensen was recalled to say that a bay horse, blind of one eye, was shot for glanders.

The Coroner, in a clear and careful summing up of the evidence, pointed out that the case was not only one of importance, as bearing on the death of the deceased, but also as it affected the public. No one could say where such an outbreak would end. The first question for the Jury was what was the cause of the deceased man's death? He thought there could be no doubt, from the medical evidence, that it was glanders. The next question was how did he acquire that disease? The deceased was ostler to Mr. Churchman at Felixstowe for some weeks, and left there on the 5th September, and he had stated that before leaving he was asked to administer certain physic to five horses in Mr. Churchman's stable. He went home, and when his wife asked him about a scratch on his right hand, he said that it was done by a horse's tooth while he was drawing his hand out of its mouth. He became ill, and consulted Dr. Rygate, who, having seen a previous case of glanders in London, became suspicious and questioned him. He said he did not know whether or not the horse had glanders, but the horses he physicked were very ill. He (the Coroner) did not think the Jury could have any doubt that the deceased contracted glanders at Mr. Churchman's stables on the 5th September last. Then came the question of Mr. Churchman's responsibility. The law said that any person having, or having had, in his possession, or having in his charge, any diseased horse, must give notice at once to the police, and the constable must forthwith give information to the Inspector of the Local Authority who should report to the Local Authority. The offence was not in having a glandered horse in his possession, but not giving notice, and it was a very serious offence indeed, the person contravening the statute being liable to a fine. The Jury had, however, nothing to do with the non-notification of the disease, unless they could connect the death of the deceased with such neglect. If the Act of Parliament said a person must do a certain thing, and it was not done, and a person's death resulted from not doing it, a charge of manslaughter could be set up. Could they say that not giving notice of glanders in this instance caused the man's death? He did not himself think that they could. How was it that the disease was not discovered earlier? They had heard the condition of the horses described, and they must form their own opinion, as sensible men, of Mr. Churchman's statement that he did not know of its existence until he called in Mr. Jurgensen on the 15th of September. Whatever the result of that inquiry in that Court, he could not help thinking that the inquiry would have a most salutary effect in calling the attention of jobmasters and others who kept horses on the importance of having their horses properly examined when they were doubtful as to the nature of any ailment they were suffering from. He could not conclude his remarks without saying that the promptitude and intelligence displayed by Mr. Jurgensen when he was called in were most commendable.

The Jury retired to consider their verdict, and after an absence of about half-an-hour decided as follows:—"That the deceased died from glanders, which was caused by injury to the hand, received in administering a ball to a glandered horse. The Jury exonerate Mr. Walter Turtill from all blame, but much regret that Mr. Churchman did not sooner call in expert opinion as to the cause of the horse's ailments. The Jury wish to express their sympathy with the widow."

The enquiry then terminated, having lasted over three hours.

Both Mr. Walter Turtill and Mr. Churchman were told by the Coroner before giving their evidence that they were not obliged to answer any questions which would be to their prejudice.—*East Anglian Daily Times.*

VETERINARY SURGEONS AND JURY SERVICE.

A special court has just been held at Alnwick, Major Widdrington presiding, and the other magistrates present being Mr. J. Tate and Mr. G. W. Thompson, at which the list of persons qualified to be be retained in the list of jurors was submitted. There was only one case against which objection was raised, that being the case of Mr. G. Craik, M.R.C.V.S., Alnwick, who appealed against his name being put on the Register as a person liable to serve as a juror.

Mr. W. T. Hindmarsh, solicitor, Alnwick, appeared on behalf of appellant, and argued at considerable length that all registered medical practitioners were exempt, and that by the terms of the Veterinary Surgeons Act of 1881, anyone who practised veterinary surgery necessarily became a medical practitioner. Appellant, owing to his public appointments, was liable to be called away at any moment. The appeal was not brought from a selfish motive, but really for the benefit of the community at large.—Eventually the Bench decided that appelant's name should be struck off the register. —*Newcastle Daily Journal.*

On Saturday, September 24th, at a Special Court held at Alnwick for the purpose of hearing objections to the Jurors' lists a case of considerable importance was decided, when Mr. Geo. Craik, veterinary surgeon, claimed exemption. Mr. Hindmarsh, who appeared on behalf of the claimant, very ably showed that although the profession to which Mr. Craik belongs is not specially mentioned in the exemption list yet the words "*all registered medical practitioners*" applied not merely to one particular class of persons but to all duly registered and qualified men actually engaged in the practice of medicine, and, quoting from the various charters granted to the Royal College of Veterinary Surgeons, contended that his client fulfilled the conditions stated. As it transpired that there is a considerable difference of opinion on the point in various parts of the country, it was left to the Alnwick Justices to use their own discretion, and in deciding to allow Mr. Craik's name to be struck off the list, I consider they showed their wisdom. Veterinary surgeons have duties akin to that of the ordinary medical practitioner, and if by reason of serving on a jury they are unable to respond to the call for

their services when required, it is certain that not only may many valuable animals be sacrificed by delay, but the dangers attendant upon glanders, anthrax, and other kindred diseases needing prompt attention, considerably increased. Consequently I think, in the interests of the public, it would be well if it were clearly and universally established that professors of this branch of the medical art, in common with the members of the other branches, were entitled to exemption from serving on juries.—*Alnwick Guardian.*

Possibly such decisions as that given recently by the Alnwick magistrates, who came to the conclusion that a veterinary surgeon was, under the meaning of the existing Acts, a person in medical practice and so exempt from jury service, may result in obtaining an amendment of the law so as to definitely fix the position of the veterinary surgeon in this respect. From the common-sense point of view, which is not always the legal point of view, however, there seems no reason why the two branches of the healing profession should be differentiated. The considerations which influenced the exemption of physicians prevail equally in regard to those whose science is exercised upon the ailments of brute creation. They are equally as liable to sudden calls and in their case the exaction of attendance upon juries might in the case of accident or sudden illness prove equally disastrous. But at present the position of the veterinary practitioner in the matter resting as it does only on the magisterial decision seems a little insecure.—*Newcastle Daily Chronicle.*

Mr. H. Bostock, solicitor, made an application at the Hyde Borough Police Court, on Thursday, Sept. 28th, on behalf of Mr. E. S. Gubbins, veterinary surgeon, of Hyde, for exemption from serving on juries. Mr. Bostock said he understood that the name of Mr. Gubbins was included in the list submitted to the Court that morning (by the Assistant-Overseer, Mr. Oldham). The Jurors' Act, 1870, provided certain exemptions. For instance, a doctor, a chemist, and a registered medical practitioner were exempted. The Act of Parliament did not mention a veterinary surgeon, and the reason was this, that in 1870 there was no recognised register of veterinary surgeons. There was, however, an Act with respect to veterinary surgeons, in the year 1881. Coming down to the Act of that year, section 2 defined veterinary surgeons as "the art and science of veterinary surgery and medicine." Well, he thought it followed that a veterinary surgeon was a medical practitioner.

The Magistrates' Clerk (Mr. Brownson): Is the College of Veterinary Surgeons a royal college?

Mr. Bostock: Yes.

The Clerk: Is Mr. Gubbins a Member of that College?

Mr. Bostock: He is a Fellow of it, and that is higher.

The Clerk: Well, there is one clause that says, "Members of the Royal College of Surgeons." Might he not come under that head as well?

Mr. Bostock: He might do.

The Clerk: So that you could claim under both heads—as a member of the Royal College of Surgeons, and as a medical practitioner.

Mr. Bostock: Yes. There was, he proceeded, a case of "*Re* Allen," decided in Ireland. There was a separate Act of Parliament in Ireland; but the only difference was that in Ireland it was the "licensed medical practitioner," whereas here it was the "registered medical practitioner." Well, Mr. Gubbins was registered; and it was a distinction without a difference, and the High Court in Ireland held that a veterinary surgeon was entitled to be exempted.

The Clerk: There was an Act for dentists in 1878, and they might have put that in as well.

Mr. Bostock: Yes, there are times when people think they have enough in an Act of Parliament—(laughter)—and it might have been so with the Veterinary Act. Matters are very different now with veterinary surgeons from what they were in 1870. They have now to pass a preliminary examination, and four other examinations, and attend a college for four years.

Mr. Gubbins, who is the veterinary surgeon to the Hyde Corporation, was called, and said he was a Fellow of the Royal College of Veterinary Surgeons. He claimed to be registered as a "medical practitioner," and claimed exemption.

The Clerk asked Mr. Oldham, the Assistant-Overseer for Hyde Township, if there was any objection from his point of view?

Mr. Oldham: No, none whatever.

The Mayor, after consulting with his colleagues, announced that the exemption asked for would be granted.

Mr. Bostock: Thank you.—*The North Cheshire Herald.*

A novel point was raised on the presentation of the jury lists by Mr. J. Mather, assistant overseer, to the Leigh Borough Bench.—Mr. A. H. Hayward applied on behalf of Mr. A. E. Darwell, veterinary surgeon, of Cook Street, Leigh, for his name to be struck off the list, contending that his client, as a registered veterinary surgeon, came under the definition of a medical practitioner and ought therefore to be exempt from serving on any jury. Mr. Hayward quoted several similar cases, and the Bench said they would grant the application, and at the same time would strike off the other gentlemen in similar positions in the town, Mr. J. W. Bennett and Mr. Pendlebury.

Mr. Mather said he would apply for the names to be reinstated next year, and Mr. Hayward replied that he would in that case apply for costs.

Mr. J. C. Calvert (magistrates' clerk): I don't think the Bench have any power to give them.

Before Messrs. R. L. Mathews and H. T. Williams.—Jury lists were handed in by the assistant overseers and signed for the parishes of Hagley, Belbroughton, Pedmore, Churchill, Broome, Lye and Wollescote, Clent, Lutley, Cradley, Wollaston, Upper Swinford, and Stourbridge. There was one objection to the Stourbridge list, by Mr. James Blakeway, veterinary surgeon, who applied for the excision of his name.

Mr. Sheldon, who appeared for Mr. Blakeway, stated his client was exempted from liability to serve on juries by virtue of being a "registered medical practitioner."

Mr. W. W. King said these words in the schedule of the Jury Act of 1870 applied equally to doctors and veterinary surgeons.—The objection was allowed.—*County Express.*

(*See also p. 218.*)

ROYAL VETERINARY COLLEGE.

The Session 1904-5 was opened at Camden Town, on Monday, Oct. 3rd. Major-General Thomson, C.B., D.G.A.V.D., presided over a very large attendance of visitors and students, amongst the former being Sir George Brown, C.B., Col. Duck, C.B., Col. Nunn, Col. Walters; Messrs. A. C. Cope, Harold Swithinbank, Wilson, W. Hunting, J. W. Dollar (President R.C.V.S.), Butters, Samson, Barrett, Thatcher (Solicitor), A. W. Hill (Secretary R.C.V.S.), Prof. Shave, and others.

The opening address was delivered by Prof. T. G. Brodie, M.D., F.R.S., who took as his main subject the general theme of education, which he considered of such overwhelming importance as to deserve frequent and

fresh reconsideration. It was a well recognised principle he said, that the nation which had reached the front rank by its energies, ambitions, and abilities could only maintain the position by continuing to progress. To maintain its leadership it must continue to lead and teach, and only by its excellence in leading and teaching could it hope to hold its proud position amongst the aspirants who were trying to overtake it and gain the premier *rôle*. General progress went hand-in-hand with education, and it was the duty of all connected with the College, the leading Veterinary College of this country, to bear in mind the part they had to play in the advancement of veterinary science. The problem was twofold: Firstly, the education of the students, and secondly the advancement of the art and science of veterinary medicine. The two were inextricably interwoven, for the more perfect the equipment for the prosecution of veterinary research and the more ardent the pursuit, the better for the training of the students and for sending them forth into the world with that scientific grounding which would enable them to undertake higher and more varied work. There was no question that the educational position in Great Britain at the present day was but a second rate one when compared with the organisations so admirably developed in Germany, France, Belgium, and America. Such a position was most galling to our national pride, and it therefore became the duty of everyone to realise the facts and to strive by all means to remove the reproach as speedily as possible. He did not want to be misunderstood: he did not wish to infer that it was only veterinary science that showed such deficiencies. Unfortunately there were many others in the same case. The most formidable cause of such defects was the lack of endowment. Efficient scientific teaching was not and never could be self-supporting. It could be so only if the fees charged to the students were enormously raised, or if the numbers of students admitted to the classes greatly increased, a condition inimical to efficient teaching. In years gone by it might have been possible to finance such a College as the Royal from the students' fees alone, but nowadays the cost of equipment and maintenance of expensive practical classes, which could alone make the teaching efficient, made such a thing impossible. The practical classes had not kept pace with the advance of the science. It was, of course, obvious that if young men were to be attracted in greater numbers into the profession commensurate advantages must be offered to them. That was very fully recognised in Germany, America, and other foreign countries, where State aid was given very liberally to veterinary colleges. Germany, for instance, possessed six large colleges or high schools, each receiving large monetary grants from the State. Munich received as much as £10,000 a year in that way. In addition, a large capital sum, exceeding £333,000, had been granted within the past few years to four out of the six schools for new buildings and equipment. The result had been the improvement of the education of the students, and the bettering of their position had opened up new fields for their work, and their numbers had steadily increased from 379 in 1880 to 1470 in 1902. The schools had been able to attract teachers of great ability and obtain from them the devotion of their whole time and energies to the one appointment. They were actively engaged in research work, and many of them were men of world-wide reputation. He had no doubt that these veterinary high schools, by reason of their efficiency, would in the near future have conferred upon them the right of granting degrees.

Prof. Brodie then turned to the subject of the new school of veterinary medicine in Liverpool, an undertaking which he thought furnished a lesson which it would be disastrous not to take to heart. That school started with the enormous initial advantage of being an integral part of the University of Liverpool; the preliminary teaching was conducted in the same laboratories and with the same equipments, and to a large extent by the same teachers employed in teaching the medical students. That was also an enormous advantage both to the veterinary students and the students of human medicine. Much of the teaching was, or should be, identical. All that was necessary in the new school was the extra expense and accommodation for that part of the teaching which was of a more specific character. Being a constituent part of the University the new department was able to draw on the University funds, which were considerable, as the University received large annual aids from the Corporations of Liverpool and other large towns, and the County Councils of Lancashire and Cheshire. The Committee responsible for the scheme had also succeeded in obtaining promises of money guaranteeing the payment of the salaries of the new teachers and the expenses of the whole department. All this was for the ultimate good of veterinary teaching in the country, and nothing but good wishes and hearty greetings should be given to the latest infant in the veterinary world.

With regard to the more personal aspect of the undertaking and its effect upon the Royal College, Professor Brodie pointed out that hitherto veterinary education in Great Britain had been in the hands of a few schools, amongst which that at Camden Town had held the premier position. That position was now seriously menaced, and it behoved all connected with the College to see that it was not outstripped in the race by a younger institution which might have learnt and profited by the lessons of the past. He emphasised the advice given two years ago by Professor Bottomley in his introductory address to the College, to wake up and show the world that Britain was not yet played out. John Bull required to be pricked and bled, he was too plethoric. He had opened one eye, but it was not the one directed towards Camden Town. By importunity and aggressive means the other eye had to be made to open to some purpose. It was for the College to work and prove that it was worthy of the premier position, that it was not resting upon its laurels, but keen and strenuous to advance. The College possessed many advantages, not the least being that it was in London. Its first efforts must be towards the acquisition of funds. Education was the first asset of a nation, its greatest wealth; and for its improvement education had a natural claim upon the country's material wealth. It was a happy sign of the times that that principle was becoming more and more accepted. It was probable that the final authority to whom the administration of the funds for higher education would be ultimately entrusted would be the local University. The College was seeking to become affiliated to the University of London, and during the past year a distinct and favourable advance had been made. Before affiliation was agreed to there was reason to believe that certain conditions would be insisted upon, such, for instance, as better laboratory accommodation, and it should be the aim of the College to fulfil those conditions as soon as possible. The general principle seemed to be that those who showed themselves most capable of helping themselves should be granted the greatest aid, and therefore the larger the funds raised by the College the greater the assistance it was likely to receive from the authorities.

Addressing himself more particularly to the students, the Professor laid stress upon the necessity of steady work. The surest road to success was regularity and application. Let no day pass without some work performed and some difficulty overcome. Education did not consist only in the acquirement of a number of dry facts, but in the application of those facts. The highest education was that which aimed at developing the thinking power, not that which imparted a large number of de-

tails. At first sight new students might imagine that their preliminary studies were somewhat remote from veterinary medicine, but he could assure them that there was nothing more helpful to their future career than a well grounded knowledge of chemics, physics, and biology. Those students who were returning to work after failure in the examination he advised not to be discouraged. The probability was that they had not been working in the right direction, and the remedy would be found in taking their teachers into their confidence and accepting of the help they were anxious to give.

In conclusion, Dr. Brodie dwelt on the necessity of combining regular, methodical work with regular and healthy recreation.

Sir GEO. BROWN, an old student, whose name was entered on the College books as long ago as 1846, moved a vote of thanks to Professor Brodie for his address, and in doing so urged upon the students the necessity of taking advantage of the opportunities offered by the College, for there was no regret so keen in after life as the knowledge that valuable time had been wasted at a critical time of life. He did not share the gloomy forebodings as to the future of veterinary science, or anticipate the time when the motor-car would triumph and the veterinary surgeon, like Richard III, would be crying out "A horse, a horse, my kingdom for a horse."

The vote was accorded with acclamation.

A hearty vote of thanks was also accorded to the Chairman, on the proposition of Mr. A. C. Cope.

In responding Maj.-General Thomson, after referring to the great advance that had been made by the A.V.D. largely owing, he said, to the Council of the R.C.V.S. and the various Vet. Med. Societies, declared that there was no position in the profession to which even the last joined student might not reasonably aspire. Luck had been described as the faculty of being in the right place at the right time and doing the right thing. It was not always possible to be in the right place at the right time or at the right time in the right place, but it was always possible to do the right thing or try to do it in dealing with the public and one's professional brethren, and with oneself.

During the meeting Prof. M'Fadyean read a long list of those who had obtained the various medals and prizes during the past year.

TRANSMITTED PEMPHIGUS.

By ROBERT SAUNDBY, M.D. EDIN., F.R.C.P. Lond.,
Professor of Medicine, University of Birmingham.

Acute pemphigus in a butcher's boy resulting in recovery.—The patient, aged 14 years, was admitted into the General Hospital on March 3rd, 1904, complaining of an eruption on his skin, sore-throat, and headache of 11 days' duration. His family and previous history were unimportant. Three weeks previously he cut his finger at his work; the wound did not heal and was poulticed by his mother. Eleven days previously, ten days after the wound to his finger, the patient felt too ill to go to work and a bullous eruption broke out, the first bleb being below the left eye. On admission his finger was practically healed but there was a small granulating surface still to be seen. The eruption covered the face and head and involved the mouth and tongue. His lips and tongue were so swollen that it was not possible to see exactly the distance to which the eruption extended to the back of the cavity. There was a similar eruption around the anus, but the epidermis had in places been rubbed off, leaving a raw ulcerated surface. The eruption on the face consisted of oval bullæ from a half to

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks.	Slaugh-tered *
GT. BRITAIN. Week ended Oct. 1, 1904		25	36	..	..	28	46	..	..	9	21
Corresponding week in	1903 ..	7	7	..		21	36	..	..	16	142
	1902 ..	8	12	..	..	19	51	..	..	14	49
	1901 ..	9	10	..		29	54	..	..	28	154
Total for 40 weeks, 1904		767	1198	..	..	1226	2164	..	..	1047	4874
Corresponding period in	1903 ..	592	894	..	..	1171	1973	..	..	1201	6282
	1902 ..	528	842	1	120	903	1627	12	11	1337	6308
	1901 ..	479	679	12	669	1076	1853	1	1	2823	13776
Board of Agriculture and Fisheries, Oct. 4th, 1904.											
IRELAND. Week ending Sept. 24, 1904		..	..	..	..	..	..	..	..	5	125
Corresponding Week in	1903 ..	..	..	..	..		..	..	..	1	58
	1902 ..	..	..	..	..	..	..	..	..	3	57
	1901 ..	..	..	..	..	..	..	..	..	..	32
Total for 39 Weeks, 1904		3	3	..	..	9	30	..	..	175	3707
Corresponding period in	1903 ..	2	3	..	..	2	3	2	..	145	3137
	1902 ..	..	..	..	..	8	35	..	..	147	2920
	1901 ..	1	2	..	..	4	4	1	1	202	3595

Epizootic Lymphangitis, Week ending Aug. 6. 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Sept. 29th, 1904.

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection.

two thirds of an inch in their longest diameter, containing sero-purulent fluid and surrounded by a pink areola; where the epidermis was detached there was a raw granulating surface. His temperature on admission was 100·4° F. and his pulse was 84. His urine contained a haze of albumin. Examination of the blood was normal. There was no eosinophilia. Cultivations of the fluid from the blebs produced only the bacillus coli. His temperature became normal on the fourth day after admission and his general condition was quite satisfactory. The rash was treated by a dusting powder containing one part of boric acid, one part of glutol, and eight parts of kaolin; but as after five days there seemed to be no change he was given in addition by the mouth five minims of liquor arsenicalis three times a day and on the 11th this was increased to ten minims. Improvement commenced at once and by March 25th he was nearly well. The albumin disappeared from his urine and he was discharged quite cured on April 5th.

During the last few years a good deal of attention has been drawn to a form of pemphigus which occurs in butchers or those handling animal tissues. Our knowledge of it is chiefly due to Pernet and Bulloch, but the case under consideration differs from this classical description in certain respects: (1) the mildness of the constitutional disturbance; (2) absence of the diplococcus described by Demme and confirmed by Bleibtreu and Bulloch; and (3) the good effect of arsenic. The case is of importance as tending to modify the grave prognosis of these cases. It is evident that the infection is not always virulent.—*The Lancet.*

The Lord Provost in a huff.

An unusual incident happened at the Royal Dick Veterinary College on Wednesday, the Lord Provost having been disrespectfully treated.

This institution, which is under the control of the Town Council, was fixed to be opened for the winter session on Wednesday afternoon, and the Lord Provost appeared promptly to perform the ceremony. Something, however, happened on the platform, which caused the Lord Provost to take his departure hastily without making any address.

On subsequently making an enquiry of the Lord Provost, we were informed that on his Lordship going into the room to ascend the platform he remarked to Principal Dewar that "the clock was behind." Previously he had spoken of another engagement.

On the remark about the clock, Mr. Dewar turned round, and said in a rude manner—"No; but you are a great deal too fast."

The Lord Provost replied—Then I don't take your chair. Get a slower man to do it.

The Lord Provost then left. He added—I think I was most disrespectfully treated, and I am resolved not to brook insult from any official.—*The Evening Dispatch*, Edinburgh.

Berlin, Sept. 30.

It is officially announced that the Emperor has acceded to the request of Prof. Dr. Robert Koch to be relieved of his post of Director of the Institute for Infectious diseases. A retiring pension is granted to the eminent bacteriologist.

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*,

War Office, Pall Mall, Oct. 4.

Imperial Yeomanry, North of Ireland.—The following announcement is substituted for that which appeared in the *London Gazette* dated June 17, 1904:

J. M. Magill, gent., to be Vet.-Lieutenant.

OBITUARY.

Scott.—On the 29th September, at 95, The Ridgway, Wimbledon, Robert Scott, M.R.C.V.S., aged 59, late of Bombay.

CORRESPONDENCE.

SPLINTS IN THE HORSE.

Sir,

I have been looking into the etiology, pathology, and treatment of splints in the horse and find that, from my experience of splints, it is possible some discussion of the subject may do good, and I desire to put a few facts before your readers which may not be new, but are at least interesting in connection with splints.

My first experience of a splint was in a horse about 13 years old. He was following me over blown down trees, and knocked his leg, became lame, and after a while I discovered a round swelling the size of a bean, about the middle of the great metacarpal bone, on its inner side. I incised it with a lancet, and a piece of thick pus about the size of a bean came out.

My second experience was in a horse which, after a fall, had what I thought was a splint, and though it did not lame him I wished to remove it. Acting on my former experience I incised it, much earlier in its history than the former case. I expected to see pus again, but serum only, and a little blood came out.

My third experience I have just had in a four-year-old horse, which was noticed lame on coming out of the stable in the morning, but the lameness soon went off as he was exercised. A swelling on the great metacarpal bone, just below the joint at the knee was discovered, and supposed to be a splint, but I could not account for it unless he had caused it by a knock from the other foot, for it came on just after he was first shod with a full shoe. His mother, when I bought her, at five-year-old had a swelling in exactly the same place, and was also lame in leaving the stable. I incised the swelling, and saw nothing but blood come out. On mentioning that to a coachman, he told me that he knew a man who cured splints by hitting with a hammer and bursting them, and the operator said they contained blood.

From my experience I believe that operator was right, and if the blood effused is left a hard bone-like substance is formed. It is possible that splints may be caused in some other way, as well as by a knock, but in whatever way they may be caused if a splint is an effusion of blood to begin with, it would appear that the best treatment would be to incise it with a double edged knife. I used a phlebotomy lancet, and it did not seem to cause much pain. So far as I can learn the incision of splints is not commonly practised.—I am, etc.,

John Haddon, M.D.

Denholm, Hawick.

VETERINARY SURGEONS AND JURY SERVICE.

Sir,

Acting on the advice of Mr. Thatcher in *The Veterinary Record* a month ago, I gave notice to the Overseers that I would claim exemption from serving as a juror, and this morning appeared before the Magistrates for that purpose. I am glad to be able to inform you that the Magistrates (four of them on the Bench) unanimously agreed to exempt me, and that it would not be necessary for me to appear annually to renew it.

Hoping there are many more V.S. who have objected and have been successful.—Yours respectfully,

Dolafon, Corwen. Hugh O. Richard.

Communications and Papers received.—Messrs. James Blakeway, H. O. Richard, B. Runciman, W. W. Lang, G. Craik, W. H. Flook, A. E. Darwell, J. Share Jones. *Report of Government V.S., Ceylon, 1903; Sussex Daily News, Alnwick Guardian, Newcastle Daily Chronicle, The Ceylon Observer, Newcastle Daily Journal, The North Cheshire Herald, The Kerry Sentinel, The Irish Times.*